

Interactive Exam Questions: Shoreline Defense Structures

1. Shoreline defense structures are employed to reduce or prevent the erosion of upland by tidal waters.
True
False
2. Longshore drift refers to the movement of water currents parallel to the shoreline or beach causing floating objects and suspended material to move along the shoreline.
True
False
3. In the construction of a bulkhead all of the unusable extra wood, cut-off poles and other treated wood debris is placed behind the bulkhead as fill and referred to as “deadmen.”
True
False
4. Geotechnic material, commonly referred to as filter cloth, is placed behind bulkheads and under riprap to filter out pollutants such as fertilizers, pesticides, oil and grease that seep into the water from the upland.
True
False
5. In a riprap revetment, the core stone functions as a base and stabilizer for the larger armor stone placed on top.
True
False
6. When building a bulkhead, the sheet piles or vertical boards, need only to be driven into the soil about 6 inches.
True
False
7. Downdrift refers to the white, fluffy, foam-like material occasionally seen on the shoreline.
True
False
8. The primary causes of shoreline erosion in the Chesapeake bay are the rise in average world sea level and the local land subsidence (sinking), not coastal storms.
True
False
9. Soil type or composition (sand, clay, mud) of the shoreline (upland) really does not affect the rate at which the upland erodes.
True
False

10. Bulkheads are commonly constructed with pressure treated wood, however they can be constructed of interlocking vinyl sheets, recycled plastic or steel plates.
True
False
11. One advantage of using bulkheads for shoreline protection is that they dissipate and absorb the energy from waves as they strike the structure and therefore don't transfer wave energy to other areas.
True
False
12. Riprap revetments are normally constructed of varying sizes of granite quarry stone, however they may be constructed of concrete rubble or other properly sized, uncontaminated material.
True
False
13. Bulkheads and riprap revetments are examples of which approach to shoreline erosion control.
a. Hard
b. Soft
14. Two advantages of a properly installed riprap revetment are that it dissipates or absorbs wave energy and functions as habitat for marine organisms.
True
False
15. As a general rule a properly constructed bulkhead utilizing treated wood will last almost as long as a properly constructed and sized riprap revetment.
True
False
16. Groins are the one shoreline defense structure that really have little potential adverse impact to neighboring shorelines because they jut out into the water, away from the shoreline.
True
False
17. While groins and jetties appear similar in construction, a jetty is usually used to protect and maintain an entrance channel.
True
False
18. It is generally preferred, where appropriate, to use a soft approach to shoreline protection by utilizing a vegetated wetland as a buffer against erosion.
True
False
19. Vegetated wetlands will work successfully on almost every shoreline, that's why they are so valuable and important!
True
False

- 20.** Generally speaking, a properly designed and installed riprap revetment is preferred over a bulkhead because the riprap, dissipates wave energy, provides marine habitat, contains no toxic chemicals and will last virtually forever!
- True
False